

AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A motion picture pseudo contour correcting method comprising the steps of:

(a) detecting a gray level shift from a focused pixel in a frame of a motion picture to an adjacent pixel in the frame, as gray level information of the focused pixel;

(b) detecting a motion vector indicative of a speed and a direction of motion of a picture from the focused pixel to another pixel, as motion information of the focused pixel; and

(c) ~~outputting a corrected gray level signal based on input of an original signal of the picture, the gray level information, and the motion information generating a correction gray level signal using logical formulae formularized for each motion picture pseudo contour generation pattern based on the generation patterns classified according to the respective gray level information of the focused pixel and adjacent pixel, and the motion information.~~

2. (currently amended) The motion picture pseudo contour correcting method as set forth in claim 1, wherein:

said step (a) includes a sub-step (d) of selecting a correction pattern from among a plurality of correction patterns, based on the gray level information detected, the logical formulae being determined for each of the correction patterns; and

said step (c) includes the sub-steps of:

(e) determining a the correction gray level signal ~~based on by~~
~~selecting~~ a logical formula corresponding to the correction pattern
selected at said sub-step (d), ~~and the gray level information and~~
~~the motion information of the focused pixel;~~ and

(f) generating the corrected gray level signal by synthesizing
the correction gray level signal determined at said sub-step (e)
and the original signal.

3. (original) The motion picture pseudo contour correcting
method as set forth in claim 2, wherein in said sub-step (e),
pixels affected by the motion vector are selected as prospective
corrected pixels, among pixels that the motion vector passes, and
correction gray level signals are generated with respect to the
prospective corrected pixels.

4. (original) The motion picture pseudo contour correcting
method as set forth in claim 3, wherein at most 4 prospective
corrected pixels are selected.

5. (canceled)

6. (canceled)

7. (currently amended) A motion picture pseudo contour
correcting method in a gray level display method that utilizes at
least a time division method in which one field period or one frame
period in image display is divided into a plurality of sub-fields,

said motion picture pseudo contour correcting method comprising the steps of:

generating a motion picture pseudo contour correction-use signal according to formulae formularized for each motion picture pseudo contour generation pattern based on the generation patterns classified in accordance with gray level information of a focused pixel of a picture in a certain field or a frame, gray level information of a pixel adjacent to the focused pixel in the same field or in the same frame, and picture motion information detected regarding the picture of the field or the frame; and

outputting the motion picture pseudo contour correction-use signal with respect to an original signal of the picture of the field or the frame.

A1
8. (canceled)

9. (Original) The motion picture pseudo contour correcting method as set forth in claim 7, wherein the motion picture pseudo contour correction-use signal is generated with respect to not less than one pixel selected, according to a magnitude of a motion picture pseudo contour generated, from among a plurality of pixels arranged from the focused pixel in a direction of the motion of the picture.

10. (Original) The motion picture pseudo contour correcting method as set forth in claim 7, wherein the time division method is used in combination with a pixel division method in which one pixel is composed of a plurality of sub-pixels.

11. (Original) The motion picture pseudo contour correcting method as set forth in claim 7, wherein at most 4 pixels are selected, according to a magnitude of a motion picture pseudo contour generated, from among a plurality of pixels arranged from the focused pixel in a direction of the motion of the picture.

12. (canceled)

13. (currently amended) ~~The motion picture pseudo contour correcting method as set forth in claim 7, wherein formulae that are used in generating the motion picture pseudo contour correction-use signal are grouped in a block form, according to a predetermined range of gray level values in series that the focused pixel may take, and a predetermined range of gray level values in series that the adjacent pixel may take.~~

A motion picture pseudo contour correcting method in a gray level display method that utilizes at least a time division method in which one field period or one frame period in image display is divided into a plurality of sub-fields, said motion picture pseudo contour correcting method involving generating a motion picture pseudo contour correction-use signal according to gray level information of a focused pixel of a picture in a certain field or a frame, gray level information of a pixel adjacent to the focused pixel in the same field or in the same frame, and picture motion information detected regarding the picture of the field or the frame, said motion picture pseudo contour correcting method comprising the steps of:

generating the motion picture pseudo contour correction-use signal using formulae formularized for each group of gray level shifts between the focused pixel and the adjacent pixel, in order to generate the motion picture pseudo contour correction-use signal using the same computation with respect to gray level shifts of the same group; and

outputting the motion picture pseudo contour correction-use signal to an original signal of the picture of the field or the frame.

14. (Original) The motion picture pseudo contour correcting method as set forth in claim 7, wherein the detected motion information of the picture is divided into components in two directions crossing on a screen, and the motion picture pseudo contour correction-use signal is generated as to at least one of the two components.

15. (currently amended) An image display device comprising:
a gray level information detecting section for detecting a gray level shift from a focused pixel to an adjacent pixel as gray level information of the focused pixel;

a motion information detecting section for detecting a motion vector indicative of a speed and a direction of a picture when the picture moves from the focused pixel to another pixel, as motion information of the focused pixel; and

~~a correction-use signal generating section for outputting a corrected gray level signal, based on an original signal of the picture, the gray level information, and the motion information~~

that are inputted thereto a computing section for generating a correction gray level signal using logical formulae formularized for each motion picture pseudo contour generation pattern based on the generation patterns classified according to the respective gray level information of the focused pixel and adjacent pixel, and the motion information.

16. (currently amended) The image display device as set forth in claim 15, wherein further comprising:

a signal inserting section for generating a corrected gray level signal by synthesizing the correction gray level signal determined by said computing section and an original signal of the picture,

wherein:

said gray level information detecting section selects a correction pattern from among a plurality of correction patterns, according to the gray level information detected; the logical formulae being determined for each of the correction patterns; and

said correction-use signal generating section includes:

a computing section for determining a correction gray level signal, according to logical formulae corresponding to the correction pattern selected, and the gray level information and motion information of the focused pixel; and

a signal inserting section for generating a corrected gray level signal by synthesizing the correction gray level signal determined by said computing section and the original signal.

said computing section determines the correction gray level signal by computing according to logical formulae corresponding to the correction pattern selected.

17. (canceled)

18. (currently amended) An image display device that executes gray-scale display by adopting at least the time division method in which one field period or one frame period in image display is divided into a plurality of sub-fields, said image display device comprising:

a gray level information detecting section for detecting gray level information of a focused pixel in a picture of a certain field or frame, and gray level information of a pixel adjacent to the focused pixel in the same field or in the same frame;

a motion information detection section for detecting motion information of the picture in the field or the frame;

a correction-use signal generating section for generating a motion picture pseudo contour correction-use signal using logical formulae formularized for each motion picture pseudo contour generation pattern based on the generation patterns classified according to the respective detected gray level information of the focused pixel and adjacent pixel, and the detected motion information; and

a signal inserting section for outputting the motion picture pseudo contour correction-use signal to an original signal of the picture of the field or the frame.

19. (canceled)

20. (canceled)

21. (new) An image display device that executes gray-scale display by adopting at least the time division method in which one field period or one frame period in image display is divided into a plurality of sub-fields, said image display device comprising:

a gray level information detecting section for detecting gray level information of a focused pixel of a picture in a certain field or a frame and gray level information of a pixel adjacent to the focused pixel in the same field or in the same frame;

a motion information detecting section for detecting motion information of the picture in the field or the frame;

a correction-use signal generating section for generating a motion picture pseudo contour correction-use signal according to the respective detected gray level information of the focused pixel and adjacent pixel, and the detected motion information, gray level shifts between the focused pixel and the adjacent pixel being grouped, the correction-use signal generating section generating the motion picture pseudo contour correction-use signal in accordance with formulae formularized for each group of the gray level shifts, in order to generate the motion picture pseudo contour correction-use signal using the same computation with respect to gray level shifts of the same group; and

a signal inserting section for outputting the motion picture pseudo contour correction-use signal to an original signal of the picture of the field or the frame.